# Louisiana Department of Environmental Quality (LDEQ) Office of Environmental Services

# STATEMENT OF BASIS

Gulf South Pipeline Co LP
Gulf South Pipeline Co LP - Tallulah Compressor Station
Tallulah Madison Parish, Louisiana
Agency Interest Number: 139461
Activity Number: PER20090005
Proposed Permit Number: 1780-00014-V0

#### I. APPLICANT

Company:

Gulf South Pipeline Co LP - Tallulah Compressor Station 9 Greenway Plaza Ste 2800 Houston, Texas 77046

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Facility:

Gulf South Pipeline Co LP off Hwy 602, SE of Tallulah, Madison Parish, Louisiana Off Hwy. 602, SE of Talullah

#### II. FACILITY AND CURRENT PERMIT STATUS

The Tallulah Compressor Stations is a typical natural gas transmission station. Sweet natural gas is received into the station via Gulf South's pipeline system. The natural gas is routed through filter separators to remove any entrained liquids; the gas is then typically routed through one of the existing compressor turbines. The purpose of these turbines is to increase the pressure of the natural gas stream and enable transportation to the next downstream station. Any condensate separated from the natural gas is stored in a 250 bbl storage tank and periodically loaded into tank trucks and shipped off-site. Air emissions will consist primarily of combustion products generated from firing natural gas in the turbine engines and the auxiliary generator engine. Volatile organic compounds are generated during the loading operations from the condensate tank to tank truck, flashing at the condensate tank, the blowdown vent, area releases of natural gas, and fugitive emissions from equipment components. Additionally, fugitive particulate emissions are generated by traveling on unpaved roads.

Gulf South Pipeline Co LP - Tallulah Compressor Station is a designated Part 70 source. This is the initial TV permit for the facility.

#### III. PROPOSED PROJECT/PERMIT INFORMATION

#### **Application**

A permit application and Emission Inventory Questionnaire dated April 20, 2009 were submitted by Gulf South Pipeline Co. LP on May 4, 2009 requesting a Part 70 operating permit. Additional information dated July 29, 2009 was also received.

#### **Project**

Gulf South Pipeline proposes the following changes at their Tallulah Compressor Station:

- 1. Since previously permitted turbine C-4 (EQT004) was not constructed as allowed by 2007 state permit, Gulf South is requesting to construct a larger turbine (from 10,302 to 20,000 hp), and keep the same naming convention. The new turbine will be equipped with an electric starter and two separate stacks for "blowdowns" which is the venting of gas when depressurizing a section of piping or the turbine's compressor.
- 2. Addition of new gas coolers. On June 11, 2009 a minor modification was issued for the installation of an emergency generator, EG-2, dedicated to back up electricity for the new gas coolers to be installed with this project.
- Another new emergency generator, EG-1, will be added to cover the increased electrical demand at the station created the new turbine. The generator will be equipped with low emission combustion (LEC) technology to minimize NOx emissions.
- 4. Gulf South is updating description, emissions and stack parameters for equipment constructed and permitted in 2007.
- 5. Several insignificant emission units will be added as part of the proposed project (new fuel gas heater, four small storage tanks used to store new and used lubricating oil, coolant and oily water collected from sumps).

#### **Proposed Permit**

Permit 1780-00014-V0 will be the initial Part 70 operating permit for the Tallulah Compressor Station. The facility is a minor source of toxic air pollutants (TAP).

### **Permitted Air Emissions**

Estimated emissions in tons per year are as follows:

<u>Pollutant</u>	<u>Before</u>	<u>After</u>	Change
$PM_{10}$	10.24	12.09	+1.85
SO <sub>2</sub>	5.041	5.983	+0.942
$NO_X$	89.54	106.86	+17.32
CO	90.47	107.82	+17.35
VOC *	74.35	86.84	+12.49

<sup>\*</sup> Includes 5.804 TPY of Toxic Air Pollutants (TAP).

#### IV REGULATORY ANALYSIS

The applicability of the appropriate regulations is straightforward and provided in the Specific Requirements section of the proposed permit. Similarly, the Monitoring, Reporting and Recordkeeping necessary to demonstrate compliance with the applicable terms, conditions and standards are also provided in the Specific Requirements section of the proposed permit.

#### **Applicability and Exemptions of Selected Subject Items**

For the applicability and exemptions of selected subject items at the unit, refer to Section X - Table 1. Applicable Louisiana and Federal Air Quality Requirements, and Section XI - Table 2. Explanation for Exemption Status or Non-Applicability of a Source, of the proposed permit.

#### Prevention of Significant Deterioration/Nonattainment Review

Not applicable.

#### Streamlined Equipment Leak Monitoring Program

None

#### **MACT Requirements**

If applicable, the MACT requirements for the different sources are described in the Specific Requirements section of the proposed permit.

### **Air Quality Analysis**

None.

### **General Condition XVII Activities**

The facility will comply with the applicable General Condition XVII Activities emissions as required by the operating permit rule. However, General Condition XVII Activities are not subject to testing, monitoring, reporting or recordkeeping requirements. For a list of approved General Condition XVII Activities, refer to the Section VIII – General Condition XVII Activities of the proposed permit.

## **Insignificant Activities**

All Insignificant Activities are authorized under LAC 33:III.501.B.5. For a list of approved Insignificant Activities, refer to the Section IX – Insignificant Activities of the proposed permit.

### V. PERMIT SHIELD

Not requested.

### VI. PERIODIC MONITORING

There is no periodic monitoring conducted at the facility.

#### VII. GLOSSARY

Carbon Monoxide (CO) – A colorless, odorless gas, which is an oxide of carbon.

Maximum Achievable Control Technology (MACT) – The maximum degree of reduction in emissions of each air pollutant subject to LAC 33:III.Chapter 51 (including a prohibition on such emissions, where achievable) that the administrative authority, upon review of submitted MACT compliance plans and other relevant information and taking into consideration the cost of achieving such emission reduction, as well as any non-air-quality health and environmental impacts and energy requirements, determines is achievable through application of measures, processes, methods, systems, or techniques.

Hydrogen Sulfide (H<sub>2</sub>S) – A colorless inflammable gas having the characteristic odor of rotten eggs, and found in many mineral springs. It is produced by the reaction of acids on metallic sulfides, and is an important chemical reagent.

New Source Review (NSR) – A preconstruction review and permitting program applicable to new or modified major stationary sources of air pollutants regulated under the Clean Air Act (CAA). NSR is required by Parts C ("Prevention of Significant Deterioration of Air Quality") and D ("Nonattainment New Source Review").

Nitrogen Oxides  $(NO_X)$  - Compounds whose molecules consist of nitrogen and oxygen.

Organic Compound – Any compound of carbon and another element. Examples: Methane  $(CH_4)$ , Ethane  $(C_2H_6)$ , Carbon Disulfide  $(CS_2)$ 

Part 70 Operating Permit – Also referred to as a Title V permit, required for major sources as defined in 40 CFR 70 and LAC 33:III.507. Major sources include, but are not limited to, sources which have the potential to emit:  $\geq 10$  tons per year of any toxic air pollutant;  $\geq 25$  tons of total toxic air pollutants; and  $\geq 100$  tons per year of regulated pollutants (unless regulated solely under 112(r) of the Clean Air Act) (25 tons per year for sources in non-attainment parishes).

PM<sub>10</sub> – Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers as measured by the method in Title 40, Code of Federal Regulations, Part 50, Appendix J.

Potential to Emit (PTE) – The maximum capacity of a stationary source to emit any air pollutant under its physical and operational design.

Prevention of Significant Deterioration (PSD) - A New Source Review permitting program for major sources in geographic areas that meet the National Ambient Air

Quality Standards (NAAQS) at 40 CFR Part 50. PSD requirements are designed to ensure that the air quality in attainment areas will not degrade.

Sulfur Dioxide (SO<sub>2</sub>) - An oxide of sulfur.

Sulfuric Acid (H<sub>2</sub>SO<sub>4</sub>) – A highly corrosive, dense oily liquid. It is a regulated toxic air pollutant under LAC 33:III.Chapter 51.

Title V Permit – See Part 70 Operating Permit.

Volatile Organic Compound (VOC) – Any organic compound, which participates in atmospheric photochemical reactions; that is, any organic compound other than those, which the administrator of the U.S. Environmental Protection Agency designates as having negligible photochemical reactivity.